non-real time. Based on the analysis, the network (P-CSCF node) marks data packets of said message by setting header information in said packets indicating the service category of the message. (This can be accomplished for the message as a whole or on a per data packet basis for the packets contained in said message). The header information set are e.g. the DiffServ CodePoints, as explained beforehand. In step S**04** the marked packets of the message are forwarded to the GGSN for delivery to the terminal to which the message is addressed.

At the GGSN, in step S**05**, the set markings are mapped to TFTs. For example, assuming that a service category "signaling"/(real-time) call establishment has led to a marking DiffServ 001010, while a service category non-real time (e.g "push") has led to a marking DiffServ 001110, then DiffServ 001010 will be mapped to TFT#**1**, while DiffServ 001110 will be mapped to TFT#**2**.

Based on the thus assigned/mapped TFTs for the data packets the GGSN then knows that packets having a TFT as a routing indicator of TFT#**1** are to be routed to the terminal using a first PDP context (PDP Context#**1**), while the others are to be routed to the terminal using another PDP context, i.e. PDP Context#**2** in the illustrated example. Both PDP contexts belong to the same PDP address defined between the terminal and the GGSN concerned.

Thus, according to the present invention, there is assigned a specific context to said messages dependent on the analyzed service category.

The setting of TFTs will now be described in connection with FIGS. **2** to **4**.

In general and as has been described above, a terminal UE activates a signaling PDP context for SIP messages used for session setup and another PDP context for SIP messages used for other services (e.g. push services, instant messaging, presence or the like). The P-CSCF marks SIP messages used for session setup differently from SIP messages used for other services. P-CSCF knows the services e.g. by checking the Event parameter included in the SIP message. Marking may be based e.g. on different source port numbers, different DiffServ codepoints or different flow labels.

The terminal UE has to be aware of the packet marking (i.e. which packets are marked in which manner based on the service category to which they refer) in order to set TFTs correctly. The terminal UE gets this information from the external network providing the services (i.e. in this case, from the IP multimedia subsystem as for example represented by the P-CSCF node).

The terminal UE may get information on the packet marking when first contacting an application server (P-CSCF) in the external network (e.g. FIG. **3**, as a reply (step S**24**) to REGISTER or SUBSCRIBE messages (step S**23**)) or when activating the first PDP context towards the external network (FIG. **2**, step S**12** in reply to step S**10**). Typically, the first PDP context will be a signaling PDP context towards the IP multimedia subsystem.

An example of this information, as mentioned earlier, is "SIP real-time delivery=DiffServ 001010, SIP non-real time delivery=DiffServ 001110". Note that in the Figures, "real-time delivery" is represented by the example of "session setup", while "non-real-time delivery is exemplified by referring to "push". When receiving this information, UE can set the TFTs correctly (i.e. instruct the GGSN to set the TFTs correctly) and thus receives SIP messages related to e.g. session setup on a different PDP context than SIP messages related to e.g. push services.

As depicted in FIG. **2**, GGSN will insert in first PDP context activation response (step S**12**) a list of services or application ID with for each service additional configuration information (DiffServ codepoints, application server address (e.g. Proxy CSCF, push proxy or presence server address, or WAP gateway address, or instant messaging server address)). Then, when requesting a PDP activation for a SIP non-real time services (e.g. "push" as shown in step S**13**), the GGSN is informed by the UE of the TFT to be set and/or of the DiffServ Codepoints to be mapped to the thus set TFT and sets the TFT accordingly (Step S**14**) [Similar to steps S**25** to S**27** in FIG. **3**].

Further, the GGSN is implemented (not shown in the figures) to update the terminal UE if some parameters are added or modified (e.g. a new service is offered). This may be implemented by sending "Modify PDP Context" to all UE having at least one active PDP context in this Access Point Node.

As an alternative shown in FIG. **4**, GGSN may have access point specific information on the packet marking for every service. This information may be configured to GGSN, or GGSN may receive this information from a policy server (e.g. the HSS). The terminal UE indicates the service (SIP session setup/signaling /real time, SIP push/non-real time) or application ID(s) at PDP context activation (S**30**, S**33**), and GGSN sets TFT (used for downlink) correctly (S**31**, S**34**). In addition, GGSN may have to send the TFT used for uplink traffic to UE.

It is important to note that many applications may use the same PDP context, so the MS may indicate in the activate PDP request a list of service or application ID.

Also, when an application needing a PDP context is activated, the UE first checks if a suitable PDP context is already activated. If it is, then the UE adds this application on the list of application using this PDP context, and, if this application needs configuration information, it will indicate this new application to the network with a "modify PDP context". If it is not activated, the UE will activate a proper PDP context (possibly a secondary) for this application, and indicate this application in the PDP context activation request message. It should be noted, that when the UE is switched on, many applications are expected to be automatically activated, and the UE could immediately send the list of all applications sharing a given PDP context.

It is to be noted that although the foregoing description mainly focuses on some specific examples of service categories, the invention is not limited thereto. Further examples of service categories may be real time RT, non-real time NRT, signaling, best-effort, push, WAP-email, interactive, background, instant messaging, or many others as long as they may be distinguishable in terms of quality of service QoS. Also, the number of PDP contexts need not be limited to two as shown in FIG. **1** but can be generalized to be n, dependent on the number of different service categories enabled to be handled by the terminal UE. Still further, SIP has been chosen as a mere example for a message protocol and likewise WAP messages could be handled without departing from the idea underlying the present invention.

In addition, although the above description has been given mainly with a focus on the implemented method, it is to be understood that the present invention concerns also a correspondingly adapted network comprising at least a control entity CSCF and an access node GGSN.

In detail, a data network control entity (CSCF) for use in a data network, wherein messages of a specific protocol are handled using defined specific contexts for messages of said protocol, and wherein messages based on the same specific protocol relate to different service categories, comprises a transmission means adapted to receive a message at said